

10/629,415

RECEIVED  
CENTRAL FAX CENTER

JUN 14 2007

IN THE CLAIMS:

Please amend the claims as follows.

1. (Currently amended) A program storage device readable by a computer tangibly embodying one or more programs of instructions executable by the computer to perform a method for dynamically resizing mirrored virtual disks in a RAID storage system, the method comprising:

receiving a request to dynamically resize mirrored virtual disks in a RAID storage system;

manipulating RAIDs in the RAID storage system to assigned to the mirrored virtual disks prior to resizing the mirrored virtual disks; ~~to provide the desired resizing of the mirrored virtual disk;~~ and

resizing the mirrored virtual disks; and

providing the resized mirrored virtual disks for operation.

2. (Currently amended) The program storage device of claim 1 wherein the request to dynamically resize mirrored virtual disks in a RAID storage system is a request to dynamically expand mirrored virtual disks in a RAID storage system, and wherein the manipulating RAIDs ~~to provide the desired resizing~~ further comprises:

creating an amount of storage necessary by providing RAIDs on each subsystem that is associated with each component of a mirror set;

assigning attaching the RAIDs to a specific virtual disk for a mirror device; and

specifying a size for the virtual disk and mapping the size of the virtual disk directly to all components of the mirror set.

10/629,415

3. (Currently amended) The program storage device of claim 2 wherein the specifying a size for the virtual disk and mapping the size of the virtual disk is performed by an operating system.

4. (Original) The program storage device of claim 1 wherein the request to dynamically resize mirrored virtual disks in a RAID storage system is a request to dynamically shrink mirrored virtual disks in a RAID storage system, and wherein the manipulating the RAIDs to provide the desired resizing further comprises:

specifying a size of a virtual disk and mapping the size of the virtual disk directly to all components of a mirror set;

detaching any RAIDs that extend beyond the specified size of the virtual disk; and

truncating RAIDs to free up any excess physical segments back into the RAID storage system.

5. (Original) The program storage device of claim 4 wherein the specifying a size for the virtual disk and mapping the size of the virtual disk is performed by an operating system.

6. (Original) A program storage device readable by a computer tangibly embodying one or more programs of instructions executable by the computer to perform a method for dynamically expanding mirrored virtual disks in a RAID storage system, the method comprising:

creating an amount of storage necessary by providing RAIDs on each subsystem that is associated with each component of a mirror set;

10/629,415

assigning attaching the RAID's to a specific virtual disk for a mirror device prior to  
resizing the virtual disk; and

specifying a size for the virtual disk and mapping the size of the virtual disk directly to all  
components of the mirror set.

7. (Original) A program storage device readable by a computer tangibly embodying  
one or more programs of instructions executable by the computer to perform a method for  
dynamically shrinking mirrored virtual disks in a RAID storage system, the method comprising:

specifying a size of a virtual disk and mapping the size of the virtual disk directly to all  
components of a mirror set;

detaching any RAID's that extend beyond the specified size of the virtual disk; and  
truncating RAID's to free up any excess physical segments back into the RAID storage  
system.

8. (Currently amended) An apparatus for dynamically resizing mirrored virtual  
disks in a RAID storage system, comprising:

a storage system interface for providing access to a storage system;

host side interface for communicating with host devices; and

a processor, coupled to the host side interface and the storage system interface, the  
processor being configured for receiving a request to dynamically resize mirrored virtual disks in  
a RAID storage system, manipulating RAID's in the RAID storage system assigned to the  
mirrored virtual disks prior to resizing the mirrored virtual disks, resizing the mirrored virtual

10/629,415

disks, to provide the desired resizing of the mirrored virtual disk and providing the resized mirrored virtual disks for operation.

9. (Original) The apparatus of claim 8 wherein the processor is further configured for creating an amount of storage necessary by providing RAID's on each subsystem that is associated with each component of a mirror set, attaching the RAID's to a specific virtual disk for a mirror device and specifying a size for the virtual disk and mapping the size of the virtual disk directly to all components of the mirror set.

10. (Original) The apparatus of claim 8 wherein the processor is further configured for specifying a size of a virtual disk and mapping the size of the virtual disk directly to all components of a mirror set, detaching any RAID's that extend beyond the specified size of the virtual disk and truncating RAID's to free up any excess physical segments back into the RAID storage system.

11. (Currently amended) A storage area network, comprising:  
a plurality of hosts;  
at least one access device, coupled to the plurality of hosts, for managing data input/output operations; and  
a storage platform, for providing networked storage to the at least one access device, the storage platform including a management device for dynamically resizing mirrored virtual disks in a RAID storage system, the management device further comprising:  
a storage system interface for providing access to a storage system;

10/629,415

host side interface for communicating with host devices; and

a processor, coupled to the host side interface and the storage system interface, the processor being configured for receiving a request to dynamically resize mirrored virtual disks in a RAID storage system, manipulating RAIDs in the RAID storage system assigned to the mirrored virtual disks prior to resizing the mirrored virtual disks, resizing the mirrored virtual disks, to provide the desired resizing of the mirrored virtual disk and providing the resized mirrored virtual disks for operation.

12. (Original) The storage area network of claim 11 wherein the processor is further configured for creating an amount of storage necessary by providing RAIDs on each subsystem that is associated with each component of a mirror set, attaching the RAIDs to a specific virtual disk for a mirror device and specifying a size for the virtual disk and mapping the size of the virtual disk directly to all components of the mirror set.

13. (Original) The storage area network of claim 11 wherein the processor is further configured for specifying a size of a virtual disk and mapping the size of the virtual disk directly to all components of a mirror set, detaching any RAIDs that extend beyond the specified size of the virtual disk and truncating RAIDs to free up any excess physical segments back into the RAID storage system.

14. (Currently amended) An apparatus for dynamically resizing mirrored virtual disks in a RAID storage system, comprising:

first means for providing an interface to a storage system;

10/629,415

second means for providing communication with host devices; and

means, coupled to the host-side interface and the storage system interface, for receiving a request to dynamically resize mirrored virtual disks in a RAID storage system, manipulating RAID's in the RAID storage system assigned to the mirrored virtual disks prior to resizing the mirrored virtual disks, resizing the mirrored virtual disks, to provide the desired resizing of the mirrored virtual disk and providing the resized mirrored virtual disks for operation.

15. (Original) The apparatus of claim 14 wherein the means for manipulating further comprises means for creating an amount of storage necessary by providing RAID's on each subsystem that is associated with each component of a mirror set, attaching the RAID's to a specific virtual disk for a mirror device and specifying a size for the virtual disk and mapping the size of the virtual disk directly to all components of the mirror set.

16. (Original) The apparatus of claim 14 wherein the means for manipulating further comprises means for specifying a size of a virtual disk and mapping the size of the virtual disk directly to all components of a mirror set, detaching any RAID's that extend beyond the specified size of the virtual disk and truncating RAID's to free up any excess physical segments back into the RAID storage system.